

# HEXAPOD HERALD

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Entomology Department, University of Nebraska-Lincoln

November 2018

## Welcome

We wanted to welcome again the insect science majors that have started within the last year, as we now have pictures to go with most of the names: **Earl Agpawa**, **Hunter Brophy**, **Fiona Callahan**, **Erica Engel**, **Cait Gates**, **Grace Lowe**, and **Courtney Wallner**.

**Sheldon Brummel** has been named as the project coordinator for the “Great Plains Regional Master Beekeeper Training Program” through the UNL Bee Lab. He will be coordinating with beekeeping associations in NE, KS, IA, and other Great Plains States to standardize educational materials and field training activities, assist with extension programs, and review applications for certificate advancement. Other duties include assisting with the development of the website, social media, newsletters and other forms of promotion and recruitment for the program. Exploratory workshops for underserved communities will be co-organized with our partnering organization, The Center for Rural Affairs, and other collaborators.

**Dr. Xiaojie Zhou** is a visiting scientist working in **Dr. Jerry Zhu’s** laboratory. Dr. Zhou is a molecular biologist and an associate professor working at Beijing Centers for Disease Control and Prevention (China). He will be here October through December working on the repellent receptor project of biting insects and other public health-related pests.

New online M.S. students: Spring 2019 - **Marissa Cornish**, Lincoln, NE; **Ann Mayo**, Weatherford, TX.



Agpawa



Brophy



Brummel



Callahan



Engel



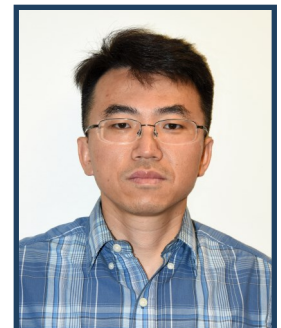
Gates



Lowe



Wallner



Zhou

## Faculty and Post-Doc News

**Dr. Shripat T. Kamble** participated in the North Central Regional IR-4 meeting in East Lansing, MI, August 19-22, 2018, and in the IR-4 National Food-Use Workshop in St. Louis, MO, September 18-21, 2018. He also hosted the Certified Entomologists of Mid America (CEMA) Meeting in Lincoln, NE on August 17-18, 2018.

**Dr. Scott O'Neal** has been awarded the 2018 UNL Outstanding Post-Doctoral Scholar Award. Scott was also featured in the article <https://entomologytoday.org/2018/10/26/why-teaching-learning-drew-one-entomologist-academia-scott-oneal/> on the online ESA news, "Entomology Today".

## Student News

**Blessing Ademokoya** and **Kayla Mollet** have each been awarded a grant from the Graduate Student Association's Graduate Travel Award Program. Blessing and Kayla will use their awards to defray the costs in attending the 2018 Entomological Society of America (ESA), the Entomological Society of Canada (ESC), and the Entomological Society of British Columbia (ESBC) Joint Annual Meeting in Vancouver, British Columbia, Canada, November 11 - 14, 2018.

**Kait Chapman** was awarded the 2018 Gamma Sigma Delta International Foundation Graduate Scholarship.

**Sajjan Grover**, along with his advisor, **Dr. Joe Louis**, attended the Distinguished Fellowships and Awards Luncheon held on October 18, 2018, in the Nebraska East Union. Sajjan is pictured on the right receiving the Hardin Distinguished Graduate Fellowship from Archie Clutter, Agricultural Research Division (ARD) Dean/Director. **Bridget Gross** (advisor, **Dr. Doug Golick**) and **Jeff Cluever** (advisor, **Dr. Jeff Bradshaw**) were also honored as recipients of the Mary and Charles C. Cooper/Emma I. Sharpless Fellowship.



**Kait Chapman, Tuğçe Karaçoban, Emily Reinders, and Jen Williams** each were awarded travel funds from the Larrick/Whitmore Graduate Student Travel Grants Program. These funds are granted on a competitive basis, providing funding for graduate student travel expense for those students who are personally presenting the results of their research and/or scholarly activity.

The following students received a travel support award from the Myron H. Swenk Memorial Fund to attend the ESA, ESC, and ESBC Joint Annual Meeting in Canada: **Molly Darlington, Sajjan Grover, Kayla Mollet, Lindsay Overmyer, Mariana Sanchez, Matt Welter, and Jen Williams.**

Graduate Student Travel Conference grants were awarded by the Entomology Department to **Kait Chapman, Sajjan Grover, Gabriela Inveninato Carmona, Tuğçe Karaçoban, Kayla Mollet, Debora Montezano, Lindsay Overmyer, Mariana Sanchez, and Dariane Souza** to attend the ESA, ESC, and ESBC Meeting.

**Kayla Mollet's** summer work was featured in an article on Nebraska Today, UNL's online daily news - <https://news.unl.edu/newsrooms/today/article/student-led-research-expands-knowledge-of-pollinator-habitats/>

**Paola Perez**, an insect science major, has received a UCARE award for this academic year, working with **Dr. Judy Wu-Smart** on the project, "Efficacy of biological control nematodes on small hive beetle pests on honey bees".

### University of Nebraska Service Awards

UNL's Celebration of Service was held September 25, 2018. A picnic lunch was served after the presentation of the 50, 45, and 40 year service awards. Those from the Entomology Department receiving awards were : **Jeri Cunningham** – 25 years, **Douglas Golick** - 15 years, **Gary Hein** - 30 years, **Bruce Koehler** - 15 years, **Joe Louis** - 5 years, **Brett Ratcliffe** - 50 years, **Lisa Silberman** - 30 years, and **Robert Wright** - 30 years.

## Publications

**Ab Majid, A. H., S. T. Kamble, and H. Chen.** 2018. Breeding Patterns and Population Genetics of Eastern Subterranean Termites in Urban Environment of Nebraska, United States. *Sociobiology*, 65(3): 506-514. DOI:10.13102/Sociobiology, V65i3.2821.

**Chapman, Kaitlin, Lia Marchi-Werle, Thomas E. Hunt, Tiffany M. Heng-Moss and Joe Louis.** 2018. Abscisic and jasmonic acids contribute to soybean tolerance to the soybean aphid (*Aphis glycines* Matsumura). *Scientific Reports* 8. <https://doi.org/10.1038/s41598-018-33477-w>

Evans, E., **M.D. Smart**, D. Cariveau, and M. S. Spivak. 2018. Wild, native bees and managed honey bees benefit from similar agricultural land uses. *Agric. Ecosys., Environ.* 268: 162-170.

Genoways, H. H. and **B. C. Ratcliffe.** 2018. Part 5: Science at Engineer Cantonment. In: J. R. Bozell, R. E. Pepperl, and G. F. Carlson (Editors), *Science and Survival at Engineer Cantonment. Archeological and Natural History Investigations at the Winter Quarters of the 1819-1820 Long Expedition.* Nebraska History 99: 46-56.

Maes, J.-M. and **B. C. Ratcliffe.** 2018. *Cyclocephala labidion* Ratcliffe, a new report for the fauna of Nicaragua (Scarabaeidae: Dynastinae: Cyclocephalini). *Revista Nicaraguense de Entomologia* 153: 3-12.

**Peterson, Julie A.,** Eric C. Burkness, James D. Harwood, and **W. D. Hutchison.** Molecular gut-content analysis reveals high frequency of *Helicoverpa zea* (Lepidoptera: Noctuidae) consumption by *Orius insidiosus* (Hemiptera: Anthocoridae) in sweet corn. *Biological Control* 121, 1-7. <https://doi.org/10.1016/j.biocontrol.2018.02.006>

Reeves, Alison M., **Scott T. O'Neal**, Richard D. Fell, Carlyle C. Brewster, and **Troy D. Anderson.** 2018. In-Hive Acaricides Alter Biochemical and Morphological Indicators of Honey Bee Nutrition, Immunity, and Development, *Journal of Insect Science*, 18(5): 8; 1-6, <https://doi.org/10.1093/jisesa/iey086>

Skoracka, Anna, Brian G. Rector, and **Gary L. Hein.** 2018. The Interface Between Wheat and the Wheat Curl Mite, *Aceria tosichella*, the Primary Vector of Globally Important Viral Diseases. *Front. Plant Sci.* 9:1098 doi: 10.3389/fpls.2018.01098

**Vélez A.M.** and **E. Fishilevich.** 2018. The mysteries of insect RNAi: a focus on dsRNA transport. *Pesticide Biochemistry and Molecular Biology.*

### SAVE THE DATES

Retirement Reception for Jim Kalisch and Bob Roselle, Fri., Dec. 7

Entomology Department Alumni Dinner, Fri., April 12, 2019

## Blasts from the Past

**Dr. Dori Harris**, Parent Test Scientist, Seeds Production Research, was named Agronomy Information Manager, Seeds Agronomy, effective June 1 at Syngenta Seeds in Seward, NE.

As part of a newly created role, Dori is responsible for developing and delivering agronomic information to the Golden Harvest & NK sales and agronomy teams. This new role was created to better support Syngenta's Seeds ambition of becoming the trusted agronomic advisor of choice with their customers.

Dori joined Syngenta in 2014, working in the Seeds Production Research department out of Seward, NE. Since joining Syngenta, Dori has brought much passion and innovation through the introduction of many new processes within the SPR team.

Dori received a Doctor of Plant Health degree in 2014, a M.S. degree in entomology in 2011, and a B.S. degree in insect science in 2008, all from UNL.



Dori Harris

**Aura Paucar**, currently living in Ecuador, recently received her Ph.D. from the Universidad de Alicante in Spain. Her dissertation title was: "Sinopsis de los Pentodontini (Coleoptera: Scarabaeidae: Dynastinae) de Ecuador y lista de especies de los escarabajos dynastinos ecuatorianos" Aura received her M.S. degree in 2001, under the supervision of **Dr. Brett Ratcliffe.**

## Busy as a Bee



Beekeeper in a Box at AppleJack Festival



Extracting honey in September at Mead

## Grants

### **Julie Peterson**

Corteva Agriscience ..... \$29,336  
“Corn earworm (*Helicoverpa zea*) pyrethroid resistance”

### **Ana Vélez**

GreenLight Biosciences, Inc. .... \$16,279  
“RNAi screening in *Diabrotica virgifera virgifera*”

### **Robert Wright**

Valent USA Corp ..... \$8,000  
“Insect Management Industry”

### **Judy Wu-Smart**

Department of Agriculture-NIFA ..... \$393,332  
“Great Plains Regional Training for Beginning Beekeeping Farmers”

## Meet an Online Student

My name is **Kelsey Larsen** and I've completed five semesters of the online M.S. Program. I live in Lincoln, NE and work full time at First National Bank. I have a 2 year old Shiba Inu named Odie and two cats, Alice and Rufus. I am a first degree black belt in TaeKwonDo. I enjoy traveling, spending time outside, and touring caves.



I graduated with both bachelor's and master's degrees in management from Doane University (formerly Doane College) and have worked in the banking industry for nine years. When I tell people that I am studying insects I get weird looks and am typically asked, “What do banking and bugs have to do with each other?”

I was formally introduced to Entomology in elementary school through my involvement in 4-H. My 4-H leader has her Bachelor's in Entomology so she wanted to share her enjoyment of insects with those of us in my 4-H club. However, my youngest brother and I were the only ones that took a liking to Entomology; so much so that it became a large part of our family's summer activities for 10 years.

While working on my Master's, I have had the opportunity to participate in several UNL sponsored activities. These activities include; going “bug hunting” with **Steve Spomer** at Indian Cave, participating in Bug Fest, helping with a pollinator event on East Campus, and spending a day in Red Cloud, NE teaching 5<sup>th</sup> & 6<sup>th</sup> graders about pollinators on the prairie.

My plans after graduating are to work in an Extension Office or related position. I want to work in Extension because it would be a great place to continue learning about insects, to be a resource for others who have questions about insects, plants, etc., and because I would like to do more with outreach/educational programs in the community.

# BugFest 2018

Over 800 people attended BugFest this year, despite rainy weather again! Bug Fest is a day to let our department show the public how cool insects really are, and for bug lovers from all over to come and meet us. New this year was Story Time, The Insect Sight and Sound Challenge, Insect Art, Build-A-Bee (Habitat), Face Painting, Insect Genetics, and Keying Out Insects. Returning by popular demand were Invasive Insects, The Insect Zoo, Nebraska Insects, How Insects Eat, Edible Insects, A Fly Went By, Salt Creek Tiger Beetle rearing at the Omaha Zoo, Honey Bees and Native Bees, Scientific Illustrators, Bronco Bugs, Mites Be Cool, Life in a Dung Pat with the State Museum Science Ambassadors, and the Bed Bug Roadshow. See you next year!



The calm before the storm - the main entrance of Entomology Hall before 800 people come on in!



Entomology graduate student, Matt Welter, explaining insect vision using the DinoLite microscope.



Insect science major, Earl Agpawa, shows how to use a pipette.



Let's build a solitary bee house with Tammy and Jordan.



Butterflies



Bees and Honey



Hissing cockroach



Praying mantid (kind of)